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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,650	10/03/2000	Pascale Escaffre	1759.011	2392

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EXAMINER

JOHNSON, EDWARD M

ART UNIT	PAPER NUMBER
1754	7

DATE MAILED: 06/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/647,650	ESCAFFRE ET AL.	
	Examiner Edward M. Johnson	Art Unit 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 03 May 2002.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-11,13-21 and 24-28 is/are pending in the application.

4a) Of the above claim(s) 13-21 and 24-28 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-11 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

 1. Certified copies of the priority documents have been received.

 2. Certified copies of the priority documents have been received in Application No. _____.

 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

4) Interview Summary (PTO-413) Paper No(s). _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-11 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that claim 1 as amended is believed to be patentable over both references. This is not found persuasive because Kimura '480 discloses silica of 180 m²/g (see below).

The requirement is still deemed proper and is therefore made FINAL.

Drawings

2. The drawings are objected to because since there is only one figure it should be unlabeled and all references to the figure in the specification should refer to the figure as --the figure-- rather than "Fig. 1". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such

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as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because the British form "characterised" and the legal term "said" are used. Examiner suggests --characterized-- and --the--. Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities: References in the specification to "Figure 1" should be changed to --the figure--, since there is only one figure in the Application. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 7, "capable of" is unclear as to whether the particles of the invention are bonded together in fact or merely capable of such bonding.

Claim 2, "the blinding agent" lacks antecedent basis.

Claim 4, "the TiO₂ particles" lacks antecedent basis.

Claim 5, the parenthetical "(as dry matter)" is unclear as to whether the subject matter is part of the claimed invention. Examiner suggests using commas rather than parentheses.

Claims 5-6, "the aqueous colloidal dispersion of silica" lacks antecedent basis. Examiner suggests --the aqueous colloidal dispersion--.

Claim 5, "the balance to 100 parts" lacks antecedent basis.

Claim 7, "the development" lacks antecedent basis.

Claims 9-10, "the inorganic binder" lacks antecedent basis.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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9. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heller 5,616,532 in view of Kimura WO97/00134 (translated in US Pat. 6,228,480).

Regarding claim 1, Heller '532 discloses a photocatalyst coating (abstract) comprising a surface area of silica binder capable of bonding together (see column 3, lines 42-43) having a diameter of less than 30 nm (see column 6, lines 5-7), wherein the photocatalyst-binder composition contains at least 10% binder (see column 10, lines 13-15).

Heller fails to disclose silica particles having a surface area greater than 80 m²/g.

Kimura '480 discloses silica of 180 m²/g.

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the silica of Kimura in the photocatalyst of Heller because Kimura discloses his silica for use in a photocatalyst material (title, column 19, line 19) for improved adhesive property and durability (see column 22, lines 30-35) and Heller discloses photocatalyst surface areas preferably greater than about 100 m²/g (see column 8, lines 47-50).

Regarding claim 2, Heller '532 discloses dispersion in water (see column 10, lines 27-30).

Regarding claim 3, Heller '532 discloses anatase TiO₂ (see column 9, lines 5-6).

Regarding claim 4, Heller '532 discloses 1-50 and 1-10 nm (see column 8, lines 42-46).

Regarding claims 5-6, Heller '532 discloses 10-90% of binder and 10-90% of photocatalyst (see column 10, lines 20-22).

Regarding claim 7, Kimura '480 discloses combination with zeolite to test adhesive property of the composition (see column 16, lines 20-36).

Regarding claim 8, Heller '532 discloses oxidizable carbon (see column 8, lines 1-3).

Regarding claims 9-11, Heller '532 discloses combination of the photocatalyst and binder by dispersion with a mixer (see column 10, lines 41-48).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ogata et al. 6,107,241 discloses photocatalyst comprising titanium dioxide (see column 3, lines 7-8), combined with a float glass (see Example 4).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M.

Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EMJ
June 8, 2002



Stanley S. Silverman
Supervisory Patent Examiner
Technology Center 1700